

ABSTRACT

An efficient method for providing both dedicated and simulcast services over a common wireless infrastructure is described. The services can be available to a single terminal as well as to a multiplicity of terminals simultaneously. The method uses time division multiplexing and orthogonal frequency division multiple access for simulcasting information and transmitting dedicated message information from a plurality of base stations forming a cellular pattern over the same wireless frequency channel. The method comprises the steps of constructing frames for transmission by the plurality of base stations comprising control information, simulcast information and dedicated message information within predetermined time slots of the frames and allocating the simulcast information and the dedicated message information to time slots of the same frame predetermined by the control information of the frame. The underlying modulation technology used is OFDM and thereby the channel delay-dispersion is minimized.

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